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NOTICE OF ALLOWANCE AND FEE(S) DUE

7590 07/22/2010

Pandiscio & Pandiscio, P.C.
470 Totten Pond Road
Waltham, MA 02451-1914

EXAMINER

COSIMANO, EDWARD R

ART UNIT

PAPER NUMBER

2863

DATE MAILED: 07/22/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/784,325

02/23/2004

Wei Du

HDM-4

8714

TITLE OF INVENTION: GIS-BASED RAPID POPULATION ASSESSMENT TOOL

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$755	\$300	\$0	\$1055	10/22/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

7590 07/22/2010

Pandiscio & Pandiscio, P.C.
470 Totten Pond Road
Waltham, MA 02451-1914

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/784,325	02/23/2004	Wei Du	HDM-4	8714
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TITLE OF INVENTION: GIS-BASED RAPID POPULATION ASSESSMENT TOOL

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nonprovisional	YES	\$755	\$300	\$0	\$1055	10/22/2010
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EXAMINER	ART UNIT	CLASS-SUBCLASS
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COSIMANO, EDWARD R	2863	702-179000
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1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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EXAMINER

COSIMANO, EDWARD R

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Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 1177 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 1177 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability	Application No.	Applicant(s)	
	10/784,325	DU, WEI	
	Examiner	Art Unit	
	Edward R. Cosimano	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 07 June 2010.
2. ☒ The allowed claim(s) is/are 1-40.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input checked="" type="checkbox"/> Other <u>Approved Drawing correction</u>. |
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Art Unit: 2863

1. EXAMINER'S COMMENT

1.1 When preparing this Office action the Examiner considers the instant application to include:

A) the Oath/Declaration filed on 23 August 2004 is acceptable to the Examiner;

B) the Abstract filed on 23 August 2004 which is acceptable to the Examiner;

C) figures 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25 & 26 of the set of drawings containing 26 sheets of 26 figures comprising figures 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 24, 25 & 26 as presented in the set of drawings filed on 30 July 2009 and figure 18 as presented in the set of drawings filed on 07 June 2010 where the content of figures 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25 & 26 of the above set of drawings is acceptable to the Examiner;

D) the Substitute written description as filed on 30 July 2009 and amended on 07 June 2010; and

E) the set of claims as filed on 07 June 2010.

2. BENEFIT OF AN EARLIER FILING DATE

2.1 Applicant's claim for the benefit of an earlier filing date pursuant to 35 U.S.C. 119(e) is acknowledged.

3. DRAWING CORRECTIONS

3.1 The Examiner has approved the proposed changes to figure 18 of the drawings as filed on 07 June 2010.

4. RESPONSE TO APPLICANT'S ARGUMENTS

4.1 The objections and rejection that have not been repeated here in have been over come by Applicant's last response.

5. REASONS FOR ALLOWANCE

5.1 The following is a statement of reasons for the indication of allowable subject matter:

A) the prior art for example:

(1) either Heching et al (2002/0128884 or 7,054,828) disclose a machine/process that provides the useful and beneficial function of making determination about a population based upon an analysis or evaluation of a population using a stratified sample of the population.

Art Unit: 2863

B) however, the prior art does not fairly teach or suggest in regard to claims 1 & 13 a process in claim 1 and a machine in claim 13 that provides the useful and beneficial function of using a spatially-stratified random sample to rapidly assess a population by providing actions in claim 1 and structures in claim 13 that perform at least the functions of:

- (1) creating a systematic grid for a study area, where the grid is defined using a given number of target grid points;
- (2) dividing each grid cell into a series of sub-grid cells that are identified from top to bottom and from left to right within each grid cell;
- (3) identifying the sub-grid of cells that intersect the study area;
- (4) listing of the identified sub-grid of cells that intersect the study area in the same order/sequence as the grid cells and sub-grid cells;
- (5) dividing the sub-grid lists into one or more sections, where each section of the sub-grid list has a substantially equal number of sub-grid cells and the number of sections of sub-lists equals the given number of target grid points; and
- (6) obtaining a “spatially stratified random sample” by randomly selecting a sub-grid cell from each section of the sub-grid listing.

Claims 2-12, which depend from claim 1, and claims 14-22, which depend from claim 13, are allowable for the same reason.

C) however, the prior art does not fairly teach or suggest in regard to claims 23 & 27 a process in claim 23 and a machine in claim 27 that provides the useful and beneficial function of rapidly assess a population by providing actions in claim 23 and structures in claim 27 that perform at least the functions of:

- (1) determining a boundary of a study area;
- (2) selecting a population estimation methodology for use on the study area;
- (3) assigning field data/information collectors to areas within the study area;
- (4) collecting field data/information from the assigned field data/information collectors;
- (5) uploading/transferring the collected field data/information to a computer;
- (6) using the computer to prepare/determine a dynamic population estimate/prediction;

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(7) using the dynamic population estimate to make resource analysis calculations and geographic assignments;

(8) uploading the determined resource analysis calculations and geographic assignments to the Internet for remote viewing; and

(9) using the uploaded resource analysis calculations and geographic assignments to distribute supplies.

Claims 24-26, which depend from claim 23, and claim 28, which depends from claim 27, are allowable for the same reason.

D) however, the prior art does not fairly teach or suggest in regard to claim 29 a process in claim 29 that provides the useful and beneficial function of using a spatially-stratified random sample to rapidly assess a population by providing actions in claim 29 that perform at least the functions of:

(1) loading at least one of “satellite imagery” and “aerial imagery” of a study area into a geographical information system (GIS);

(2) demarcating the dwellings contained within the “satellite imagery” that has been loaded into the GIS;

(3) applying a spatially stratifying sampling procedure with a predetermined estimate;

(4) simulating a distance measurement procedure based on a selected population estimate method on top of the at least one satellite imagery and aerial imagery;

(5) guiding an user to determine mouse insertion points by displaying reference lines and point based on the selected population estimation method;

(6) computing distance measurements from the insert mouse input points for the selected population estimation method;

(7) prompting the user to enter data/information in order to increase productivity for distance measurements and data/information collection; and

(8) ascertaining an overall population within the study area based on the applied spatially stratifying sampling procedure.

Claims 30-32, which depend from claim 29, are allowable for the same reason.

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E) however, the prior art does not fairly teach or suggest in regard to claims 33 & 40 a machine in claim 33 and a process in claim 40 that provides the useful and beneficial function of using a spatially-stratified random sample to rapidly assess a population by providing structures in claim 33 and actions in claim 40 that perform at least the functions of:

(1) loading "satellite imagery" for a study area into a geographical information system (GIS);

(2) demarcating the dwellings contained within the "satellite imagery" that has been loaded into the GIS;

(3) applying a spatially stratifying sampling procedure with a predetermined estimate; and

(4) ascertaining an overall population within the study area based on the applied spatially stratifying sampling procedure.

Claims 33-39, which depend from claim 33, are allowable for the same reason.

6. CONCLUSION

6.1 Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Edward R. Cosimano whose telephone number is 571-272-0571. The Examiner can normally be reached on 571-272-0571 from 7:30am to 4:00pm.

6.2 If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Drew Dunn, can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

6.3 Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ERC

07/20/2010

**/Edward Cosimano/
Primary Examiner Unit 2863**